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(54) Title: **THERMAL INTERCONNECT SYSTEMS METHODS OF PRODUCTION AND USES THEREOF**

(57) Abstract: A thermal transfer material is described herein that includes: a heat spreader component, wherein the heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material, and at least one solder material, wherein the solder material is directly deposited onto the bottom surface of the heat spreader component. Methods of forming layered thermal interface materials and thermal transfer materials include: a) providing a heat spreader component, wherein the heat spreader component comprises a top surface, a bottom surface and at least one heat spreader material; b) providing at least one solder material, wherein the solder material is directly deposited onto the bottom surface of the heat spreader component; and c) depositing the at least one solder material onto the bottom surface of the heat spreader component.

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